

Title (en)
SECONDARY LITHIUM CELL

Title (de)
LITHIUMSEKUNDÄRZELLE

Title (fr)
ELEMENT SECONDAIRE AU LITHIUM

Publication
EP 0794585 A4 19991215 (EN)

Application
EP 95937179 A 19951124

Priority
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Abstract (en)
[origin: WO9617392A1] A secondary lithium cell having a cathode containing an activate material comprising a composite oxide containing at least Li and Ni, and an anode of an Li-Ag-Te alloy. The invention is further concerned with a cathode-activate material for a secondary lithium cell comprising a composite oxide represented by a formula $\text{LiNi}_w\text{Al}_x\text{PyO}_z$ (where $0.08 < w < 1.10$, $0 < x < 0.015$, $0 < y < 0.33$, $1.8 \leq z \leq 2.2$), and secondary lithium cell containing the above cathode-activate material. The secondary lithium cell features large charge/discharge capacity, high energy density, and excellent cyclic characteristics that are deteriorated little after the repetition of charge and discharge. Moreover, the cathode-activate material comprising the composite oxide represented by $\text{LiNi}_w\text{Al}_x\text{PyO}_z$ is inexpensive and easily available. Besides, this secondary lithium cell features large capacity and excellent cyclic characteristics, and can be stably produced at a low cost.

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IPC 8 full level
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Citation (search report)
• [PX] EP 0668621 A1 19950823 - MITSUBISHI CABLE IND LTD [JP]
• [A] US 4567031 A 19860128 - RILEY BRIAN [US]
• See references of WO 9617392A1

Cited by
US5958624A; EP1501137A3; CN108963218A; EP0973217A3; EP1357616A1; EP2367224A1; US7482097B2; US6368750B1; WO9931745A1; US7429435B2; US7709150B2; US7955733B2; US7960058B2; US7964308B2; US7972728B2; US7998617B2; US8067117B2; US8282691B2; USRE43913E; US8785043B2; US9362562B2

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